

EJMOUR MOKTA
DOE/PHRI Special Medical Care Program in the Republic of the Marshall Islands

PHRI
846 South Hotel Street, Suite 303
Honolulu, HI. 96813

July 17, 2003

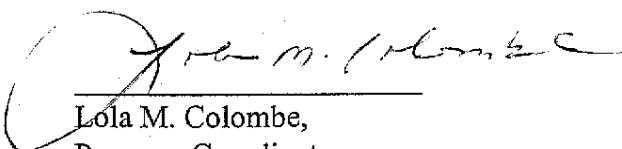
Ms. Georgia M. McClelland
Contracting Officer
Financial Assistance Center
Oakland Operations Office
Department of Energy
1301 Clay Street
Oakland, CA. 94612-5208

RE: Quarterly Progress Report for April 1, 2003 – June 30, 2003 Period for
Cooperative Agreement No. DE-FC03-98EH98035/A000

Dear Ms. McClelland:

Transmitted is our Quarterly Progress Report for the April 1, 2003 – June 30, 2003 period.

Sincerely yours,



Lola M. Colombe,
Program Coordinator

cc. William Jackson
Gerald Peterson
Henry N. Preston, M.D.
Neal Palafox, M.D.
Sheldon Riklon, M.D.

Attachment

**DOE/PHRI Cooperative Agreement
#DE-FC03-98EH98035/A000**

**DOE/PHRI Special Medical Care Program in the
Republic of the Marshall Islands**

**Quarterly Program Progress Report
April 1, 2003 – June 30, 2003**

**Submitted by:
Pacific Health Research Institute
846 S. Hotel Street, Suite #303
Honolulu, HI 96813
(808) 524-4411**

July 15, 2003

DOE/PHRI Cooperative Agreement
#DE-FC03-98EH98035/A000

DOE/PHRI Special Medical Care Program in the
Republic of the Marshall Islands

Quarterly Program Progress Report
April 1, 2003 – June 30, 2003

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Quarterly Program Progress Report under
DOE/PHRI Cooperative Agreement
#DE-FC03-98EH98035/A000

Date: July 15, 2003

Title of the Project: Deliver Special Medical Care to the Marshall Islands as
Stated in P.L. 99-239.

Principal Investigator: Neal A. Palafox, M.D., M.P.H.

Co-Principal Investigator: Henry N. Preston, M.D.

Program Coordinator: Lola M. Colombe

Period Covered in this Report: April 1, 2003 – June 30, 2003

I. Introduction

The DOE/PHRI Special Medical Care Program continues to provide, on a year round basis, a broad spectrum of medical care to the DOE patient population. During the fourth quarter of Year 5, the following medical services were provided:

- Annual medical examinations for the DOE patient population (see Exhibit 1 for details).
- Medications for the DOE patient population.
- Preventive and primary medical care to the DOE patient population in the RMI as time and resources permit.
- One visit by the Endocrinologist, Dr. Leonard Kryston to Majuro.
- Ancillary services such as labs, radiology and pharmacy in coordination with Kwajalein Hospital, Majuro Hospital and the 177 Health Care Program (177 HCP).
- Referrals to Ebeye Hospital, Majuro Hospital and Kwajalein Hospital as necessary.
- Referrals to Straub Clinic & Hospital in Honolulu as necessary (for details see Exhibit 1).

In addition to the above, the program was also involved in the following activities during this quarter:

- Organized and conducted continuing medical education (CME) talks for the program's RMI staff and other RMI healthcare workers.
- Coordinated with the Public Health Departments on Majuro and Ebeye.
- Held Community Meetings on Ebeye, Majuro and Mejjatto.
- Held discussions with PEACESAT regarding the status of high speed Internet access for the Majuro clinic.
- Looked for opportunities to expand the program's telehealth capabilities.
- Trained new residents in the use of the electronic medical record system.
- Conducted electronic medical record audits.
- Participated in the RMI-DOE meeting held in San Francisco, California in June.

The following report details the additions and changes to the program for the April 1, 2003 – June 30, 2003 period.

II. Health Status of Population

Participation in this medical program is strictly voluntary. Currently there are 115 of the exposed patients and 86 of the additional DOE patients being cared for by the program¹. The total number of DOE patient encounters during this period was 343². Four (4) patients required referrals to Straub Clinic & Hospital for further follow-up and evaluation on possible radiation related illnesses and 84 annual examinations were completed (see Exhibit 1 for details).

III. Program Administration and Physicians

Senior level resident physicians continue to do clinical work in the Marshall Islands. The clinical evaluations by the resident physicians provide continuity of care for the DOE patient population (see Exhibit 2 for details).

In order to provide ongoing continuity of care to the DOE patient population and clinic oversight for the program's RMI staff, the following program's physicians and staff based in Honolulu have visited the RMI during the April 1, 2003 – June 30, 2003 period. These visits include:

- 1 visit by Chris Welch, Systems Analyst: April 2003.
- 1 visit by Dr. Wilfred Alik, Co-Investigator: May 2003.
- 1 visit by Dr. Neal Palafox, Principal Investigator: May 2003.
- 1 visit by Dr. Henry Preston, Co-Principal Investigator: May 2003.

During this quarter, in addition to his regular duties (i.e. overseeing both of the clinics, seeing patients, and taking call at Majuro Hospital), Dr. Riklon has been involved in the following activities:

- Presented a lecture on diabetes to Majuro Hospital's practical & graduate nurses.
- Presented a talk on SARS Update to Majuro Hospital's medical, nursing, janitorial, security and other staff.
- Conducted 4 general meetings of the Marshall Islands Medical Society (MIMS) to organize the Pacific Basin Medical Association's (PBMA) Annual Meeting to be held in Majuro in the Fall of 2003.
- Met with the Hospital Infection Control Committee on developing an Infection Control & Prevention Manual.
- Met with the Minister of Health, Alvin Jacklick, Secretary of Health, Justina Langidrik, and Assistant Secretaries of Health, Dwight Heine, Russell Edwards & Sandy Alfred to discuss the establishment of the MIMS and solicit their support.
- Attended CME on Xylitol given by visiting University of Washington Professor Milgrom to Majuro Hospital's medical staff.

¹ The term DOE patient population refers to the combination of both the "exposed" patients and the additional DOE patients, formerly known as the "comparison or control" group.

² Clinic encounters fluctuate based on the presence of the medical officers and Dr. Riklon (vacation, sick leave, professional leave, outer atoll trips). In addition, please note that Kwajalein patient encounters include visits for medical procedures/tests that could not be conducted in Majuro, Mejjatto or Utrik.

- Attended the Global Public Health Conference in Honolulu, Hawaii.

IV. Continuing Medical Education

The following CME presentations have been given this quarter:

<u>DATE</u>	<u>PRESENTOR</u>	<u>PLACE</u>	<u>TOPIC</u>
April of '03	Christina Kealoha, MD (Resident)	Ebeye and Majuro Hospital	SARS
May of '03	No Resident Rotation		
June of '03	Jennifer Jose, MD (Resident)	Ebeye and Majuro Hospital	Hypertension – Joint National Committee VII Update

These presentations are given not only to the program's physicians and staff but also to other physicians, staff and interested healthcare workers in the RMI. They were held at Ebeye and Majuro Hospitals and were well received.

The program continues to provide its RMI physicians and collaborating physicians at Kwajalein and Ebeye Hospitals, medical updates and resources via e-mail and the web.

V. Clinics

Both clinics continue to provide annual medical exams for the DOE patient population (see Exhibit 1 for details) and other preventative medical services as time and resources permit. Dr. Tom Jack, Dr. Sheldon Riklon, Dr. Wilfred Alik (on a quarterly basis) and the Residents assist the MOHE at Ebeye and Majuro Hospital during outpatient clinic hours. They also take call in the evenings as assigned.

A. Majuro Clinic:

During this quarter, the Majuro Clinic was busy with the completion of annual examinations, including flexible sigmoidoscopies. It was also busy with medication refill visits and follow-up visits for diabetes and hypertension.

B. Kwajalein Clinic:

During the first week of April, the Kwajalein Clinic was very busy with thyroid examinations and thyroid ultrasounds. The clinic was also busy coordinating mammograms for patients from Majuro and the outer islands. During the last quarter the mammogram machine was

inoperable for approximately one month, which put the program behind with regards to completion of mammograms for the annual exams.

VI. Other Health Related Services

A. Public Health Sector:

In Majuro and Ebeye, as part of their ongoing public health project in the RMI, the Residents continue to conduct regular outreach visits, two to three times a week, through coordination with the Public Health nurses. During these visits the Residents assist the nurses in providing patient education to patients with diabetes, hypertension, Hanson's disease, tuberculosis, malnutrition, and STD's (sexually transmitted diseases), making dressing or medication changes and dispensing prescriptions to homebound patients. On occasion, they also assist in the immunization program, i.e. conducting TB screening tests.

On Ebeye, the residents continued to be actively involved with the TB program. Since Dr. Jack is the head of the Tuberculosis Program on Ebeye, the residents assist in caring for the admitted TB patients who are in the hospital receiving their Direct Observed Therapy (DOT).

VII. Thyroid Examinations

Currently, thyroid ultrasounds are conducted on a yearly basis on the DOE patient population. The clinics continue to use the handheld thyroid ultrasound machines and note abnormalities or nodules on specially designed progress notes. Dr. Leonard Kryston, Endocrinologist, visited the Kwajalein clinic during the first week of April. He saw 14 DOE patients.

During the last quarter of Year 5, the program has been working with Dr. Richard J. Robbins, Chief of Endocrinology at Memorial Sloan-Kettering Cancer Center, to write recommendations for thyroid care and treatment for the DOE patient population. The protocol would be general guidelines to standardize the care the patients received and be based upon up to date information and be as evidence based as possible. Dr. Robbins clinical expertise is in thyroid cancer, pituitary diseases, endocrinology and metabolism and osteoporosis. He is a leading national consultant in thyroid disease and board certified in Internal Medicine and Endocrinology and Metabolism.

Memorial Sloan-Kettering Cancer Center is more than 100 years old. The Sloan-Kettering Institute fosters innovative basic-science research focused on cancer. The center fosters close collaboration between scientists and physicians, which gives Memorial Sloan-Kettering its unique strength.

VIII. Medical Records

During this quarter the computer analyst trained one (1) resident in the use of the medical record system prior to departure for the Marshall Islands. Upon their return from the Marshall Islands, the residents have provided valuable information regarding the operation of the EMR system.

The computer analyst has continued to monitor and make adjustments to the EMR. Updates to the system are periodically received from the vendor, Physician Microsystems. On a quarterly basis the drug interaction software component of the EMR is refreshed. Updates to the remote

access software and operating system software are also periodically installed, on an as needed basis. These updates are typically for security purposes, though the vendors occasionally publish updates for increased functional capabilities in their software products.

A. Majuro

The computer analyst traveled to the Marshall Islands this past quarter primarily to increase the networking capabilities of the clinic on Majuro. The Majuro clinic, until this trip, was using dial-up capability for access to the Internet and to the EMR. The use of dial-up service on Majuro made the use of the EMR problematic, and severely restricted the anticipated benefit of the system. The change to the networking capability at the clinic is intended to facilitate better use of the EMR.

The upgrade to the Majuro clinic's network capability was dependent upon the use of PEACESAT's satellite infrastructure. The DOE/PHRI program has been in negotiation with PEACESAT for an extended period of time regarding access to the PEACESAT satellite connection to Honolulu.

The computer analyst worked on Majuro for five days in order to complete a number of IT tasks at the clinic. These tasks included:

- Installation of wireless network infrastructure
- Upgrade of onsite computer equipment
- Update of computer software
- Installation of advanced anti-virus capabilities
- General review of the health of the network infrastructure

Wireless Network Installation: The installation of the wireless network included the cabling of wireless access points (WAPs) to Yagi antennas; one antenna and access point was installed at both the DOE clinic and the Ministry of Health and Environment (MOHE). The antenna at the MOHE was mounted atop a standing 50-foot tower. At the clinic the antenna was mounted to the top of the clinic trailer. The access points were then connected to the networks at the respective locations. At the clinic a firewall was connected to the access point for the protection of the clinic's network resources.

Computer Equipment Upgrade: A new computer was installed at the clinic to replace an older, antiquated system. The new system will be used primarily for general administrative tasks; however, it will also serve as the temporary repository for thyroid images downloaded from the Sonosite. These images will be burned to a CD and then sent to Honolulu. The old administrative computer will be used as an anti-virus server (see below).

Software Update: All computers were patched with Microsoft's newest software security updates. Some operating system software was completely reinstalled.

Advanced Anti-virus Capabilities: The old administrative computer at the clinic was recycled for use as an anti-virus server. Norton Anti-virus 7.6 Corporate Edition was installed on the computer. This enabled the computer to act as a central manager for all

anti-virus activity on the clinic network. The anti-virus server downloads all software updates from a Symantec Corporation website on a regular basis and distributes them to the client computers in the clinic. The anti-virus server also quarantines any viruses found on the network.

B. Kwajalein

Personnel on Kwajalein continue to use the EMR with no issues or problems. However, the Computer Analyst did travel to Kwajalein clinic in order to update software security and to check the general condition of the information systems equipment at the site. In addition, the Computer Analyst visited Ebeye with Dr. Tom Jack in order to investigate the status of the network infrastructure on the island. PEACESAT is working in conjunction with the American Samoa Power Authority (ASPA) to connect the Ebeye Hospital and the local school to the Internet via a PEACESAT satellite link.

A discussion with a representative of ASPA revealed that the equipment for the satellite connection is expected to be in place sometime in June. Following the equipment installation, the connection to the hospital and local school will be forthcoming. An effective date for final connection was not available at the time of the visit. It was agreed that the PHRI/DOE program computer system in the hospital could be integrated into the system and used to access the EMR.

IX. Telehealth

The computer systems analyst continues to monitor and make revisions to both the public and secure website, which can be found at www.phri-doe.org. The program's connections through the telehealth associations and the National Library of Medicine allow the program to receive and send important up-to-date health information to the RMI staff as well as to other medical centers and interested parties in the RMI. This provides an on-going source of continuing medical education for RMI health professionals.

X. Quality Assurance

As more records are entered in the new EMR system, audits are conducted in Honolulu by the computer systems analyst and the program assistant. The records are checked for accuracy and completeness.

The program continues to make sure the patient satisfaction forms are completed and tabulated on a yearly basis as patients come in for their annual examination. The forms are tabulated on an annual basis and the results will be made available in the program's annual report.

XI. Community Meetings

During the month of May, Dr. Neal Palafox, Dr. Henry Preston, Dr. Wilfred Alik, Dr. Sheldon Riklon and Dr. Tom Jack held Community Meetings on Ebeye, Majuro and Mejjatto. The community meeting on Utrik was cancelled due to seats not being available on the scheduled AMI flight.

In general, the meetings were well attended and there were no major complaints with the medical program. The majority of the patients concerns were with regards to the closing of the 177 Health Care Program and how the closing would affect the patients overall healthcare and how much would care the DOE program would be able to cover.

XII. Access

For the majority of patients who reside on the U.S. Mainland or in Hawaii, the program continues to conduct annual examinations for them at the Physician's Center in Mililani. However, during this quarter, the program made a concerted effort to find physicians closer to the patients' homes. The program is currently negotiating with a physician on Maui to conduct annual exams for the patients who reside in Maui. Also, for the patient who resides in Oregon, arrangements have been made with the patient's personal care physician to conduct the annual exam on behalf of the program. The program has also found a physician in Arkansas to conduct the annual exams on the three (3) patients who reside there and is currently working to find physicians in Utah and Iowa.

The program also works closely with Bechtel Nevada to make sure patients, who reside in Hawaii and on the mainland, who are eligible for insurance, complete the necessary paperwork in the State where they reside.

XIII. Conferences

Global Public Health Conference: Honolulu, HI.

The 2nd Annual Global Public Health meeting was attended by Drs. Neal Palafox and Sheldon Riklon and Vicki Shambaugh and Lola Colombe.

This year's theme was Collaborating for Quality of Life and Health in the Pacific. The conference offered presentations from a host of Pacific Islands, from Hawaii to Aotearoa, on topics such as Culture and Health, Mental Health, SARS, Cancer, HIV and Nutrition.

The conference was of great value as it offered an avenue for the various participants to interact and learn about projects being done in the Pacific. It included panels and workshops on "Cancer in the Peoples of the United States Associated Islands (USAPI)", "Globalization, Health and Development Policy in the Pacific Island Countries", "Impact of Home and Food Store-based Interventions to Improve Diet in the RMI", "The National Health Service Corps and the Pacific Basin" and "Pacific Islands Cancer Needs Assessment".

25th American Pacific Nursing Leader Council (APNLC) Conference: Yap, Federated States of Micronesia (FSM)

The conference was attended by Hemiko Bingham (Nurse Coordinator - Majuro Clinic). It provided her the opportunity to share ideas and expertise with other nurses in the region.

The APNLC is an organization comprised of nursing leaders from the American Pacific Basin: American Samoa, Commonwealth of Northern Mariana Islands (CNMI), Federated States of

Micronesia (FSM), Chuuk, Kosrae, Pohnpei, Yap, Guam, Hawaii, Republic of the Marshall Islands, and the Republic of Palau. The goals of the organization are:

- To improve nursing practice in the pacific region
- To provide a communication mechanism for nursing leaders
- To discuss problems confronting nurses in the American Pacific Basin
- To examine solutions to problems or resolutions to issues in the American Pacific Basin
- To explore educational needs of nurses in the American Pacific Basin
- To share expertise of nurse members both from within and from without the membership

Exhibit 1

Patient Statistics for April 1, 2003 – June 30, 2003 (1)

Location	DOE Patient Encounters (4)	Non-DOE Patient Encounters (5)	Deaths	Referrals to Hawaii	Annual Examinations (6)
Ebeye	1	44	0	1	19 (29)
Kwajalein	176	-	-	-	-
Majuro	138	188	0	1	2 (35)
Mejatto	1	0	0	0	3 (14)
Utrik	0	0	0	0	0 (5)
Hawaii (2)	13	-	0	1	0 (1)
CONUS (3)	15	-	0	1	9 (9)
Total	344	232	0	4	33 (93)

(1) Statistics from April 1, 2003 – June 30, 2003.

(2) Includes Honolulu prescription refills: 12 sent to patients residing in Hawaii.

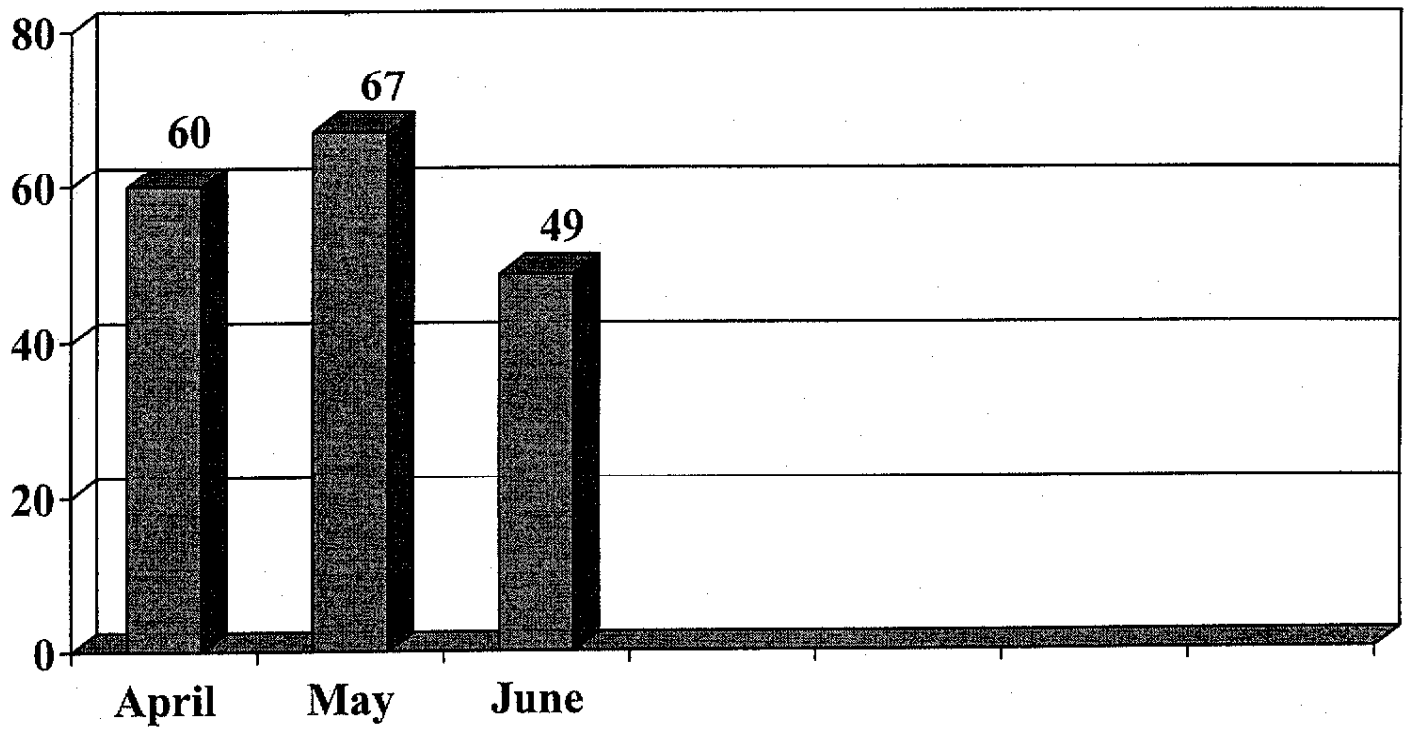
(3) Includes CONUS prescription refills: 6 sent to mainland patients and annual exam visits conducted in Hawaii.

(4) Encounters include visits for annual exams, home visits, follow-ups, labs, procedures and prescription refills.

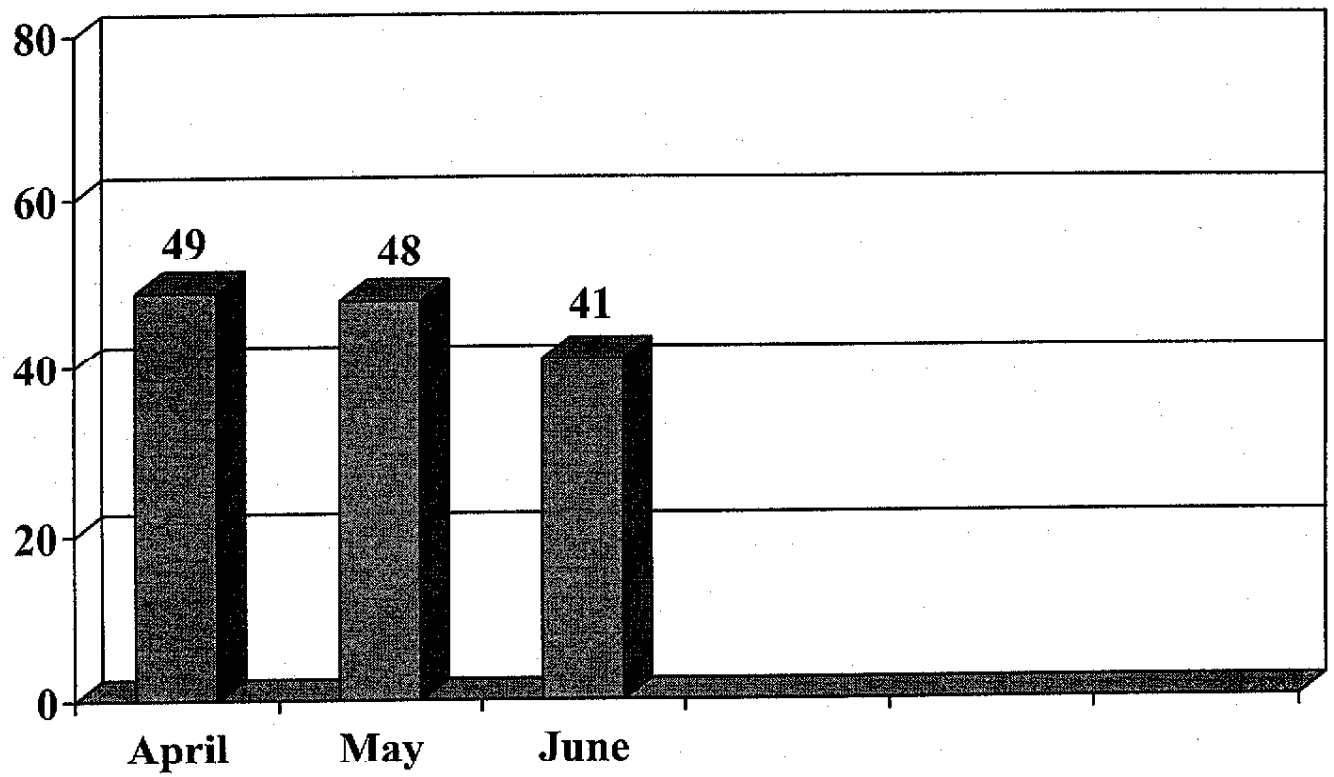
(5) Total # of non-DOE patients seen at outpatient clinics at Ebeye and Majuro Hospital by the Medical Officers, Residents and Faculty.

(6) Indicates the location where the patient resides, not where exams were done. The first number represents the number of annual exams begun during the period and the number in () indicates annual examinations completed during this period.

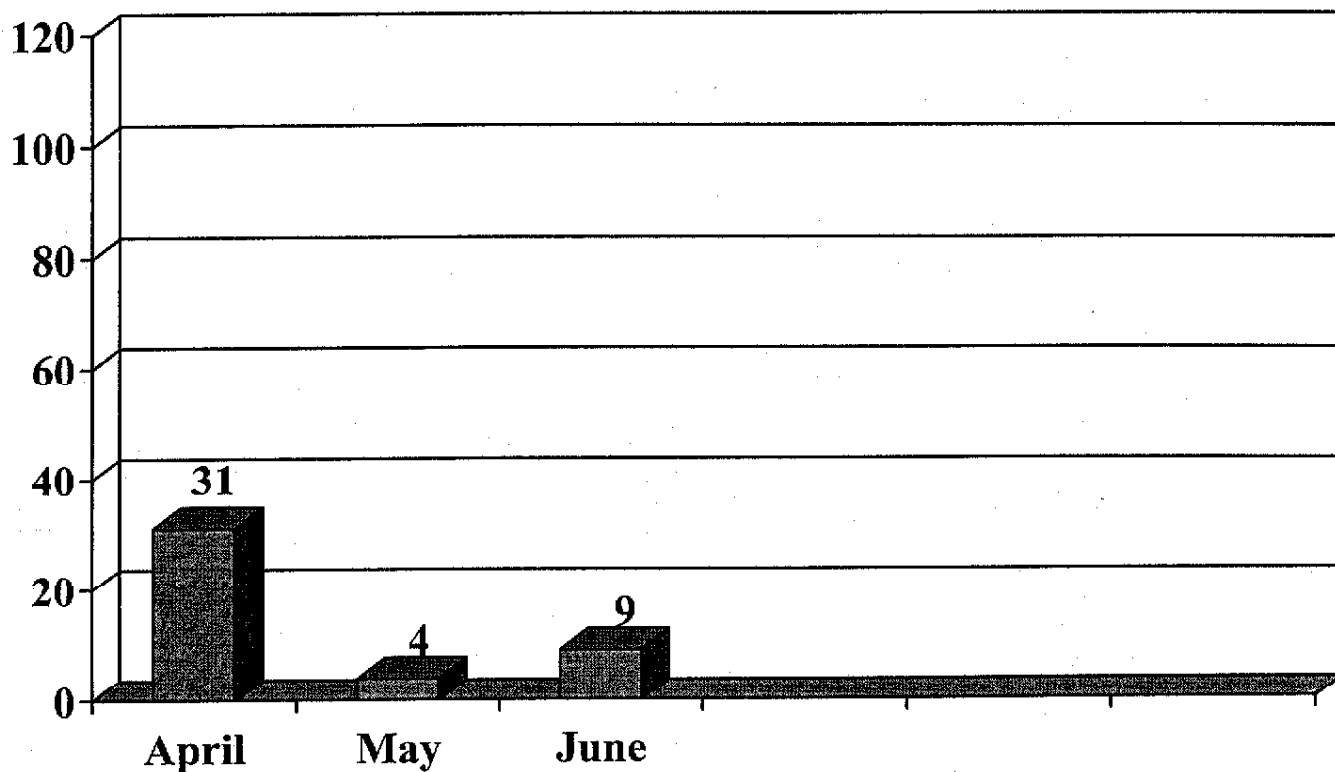
DOE Patient Encounters – Kwajalein Clinic



DOE Patient Encounters – Majuro Clinic

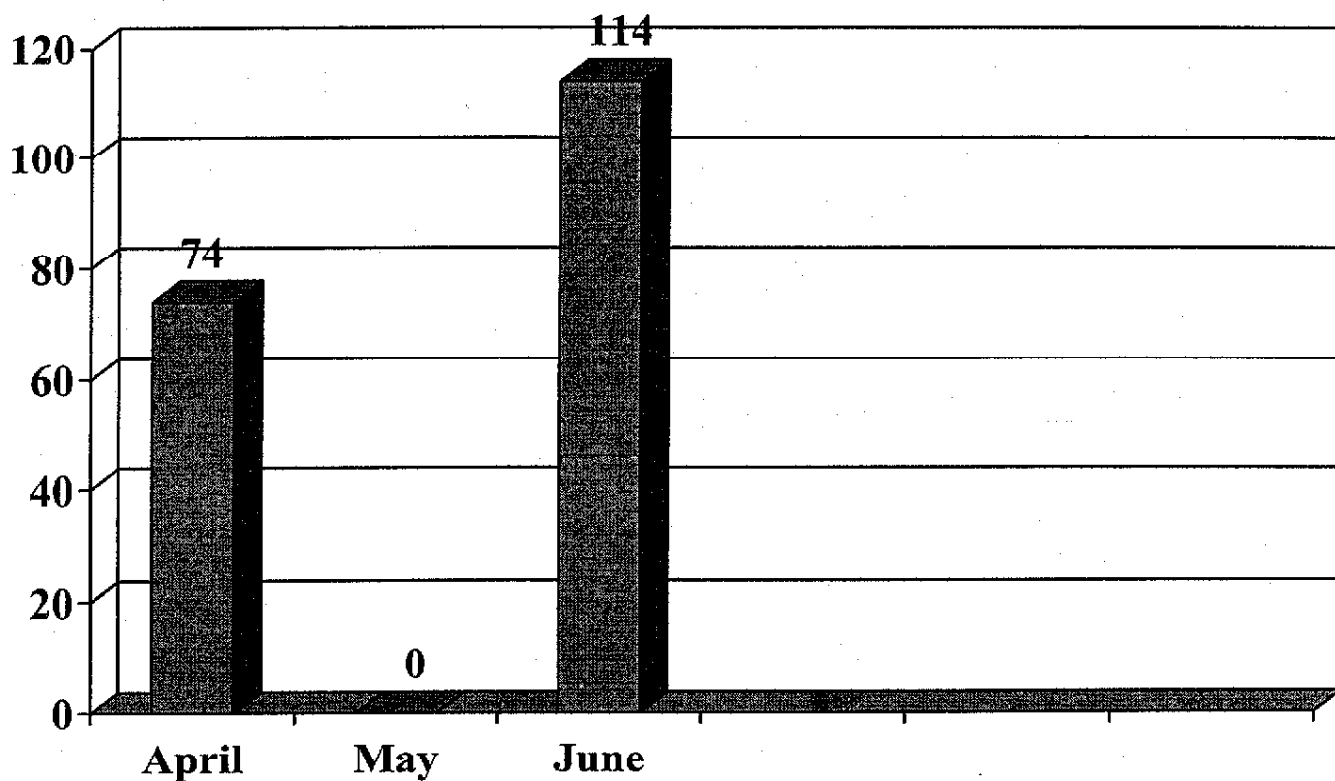


Non-DOE Patients Seen at Outpatient Clinic: Ebeye Hospital³



³ Outpatient counts for April were 8 for Dr. Jack and 23 for the Resident. Outpatient counts for May were 0 for Dr. Jack and 4 for the Resident. There was no Resident for the April 25 – May 23 time period. Outpatient counts for June were 0 for Dr. Jack and 9 for the Resident. The final outpatient counts for May and June were not received as the Medical Officer was off-island due to a family medical emergency.

Non-DOE Patients Seen at Outpatient Clinic: Majuro Hospital⁴



⁴ Outpatient counts for April were 20 for Dr. Riklon and 54 for the Resident. Outpatient counts for May were 0 for Dr. Riklon. There was no resident rotation for the April 25 – May 23 period. Outpatient counts for June were 0 for Dr. Riklon and 114 for the Resident. During the month of May and June Dr. Riklon was off-island and on vacation.

Details on Patient Referrals

1. Patient #19 was referred to Straub Clinic & Hospital in Honolulu for a follow-up for elevated PSA.
2. Patient #36 was referred to Straub Clinic & Hospital in Honolulu for a 3-month follow-up for cancer.
3. Patient #47 was referred to Straub Clinic & Hospital in Honolulu for a fine needle aspiration of the thyroid.
4. Patient #980 was referred to Straub Clinic & Hospital in Honolulu for a 3-month follow-up for an abnormal Pap smear.

Exhibit 2

Ejmour Mokta – DOE/PHRI Special Medical Care Program in the Republic of the Marshall Islands

Rotation Schedule

I. Faculty⁵

Apr. 25 – May 9 Wilfred Alik, MD

II. Residents

Mar. 31 – Apr. 25 Christina Kealoha, MD
Apr. 25 – May 23 No Resident
May 26 – Jun. 20 Jennifer Jose, MD

III. Other

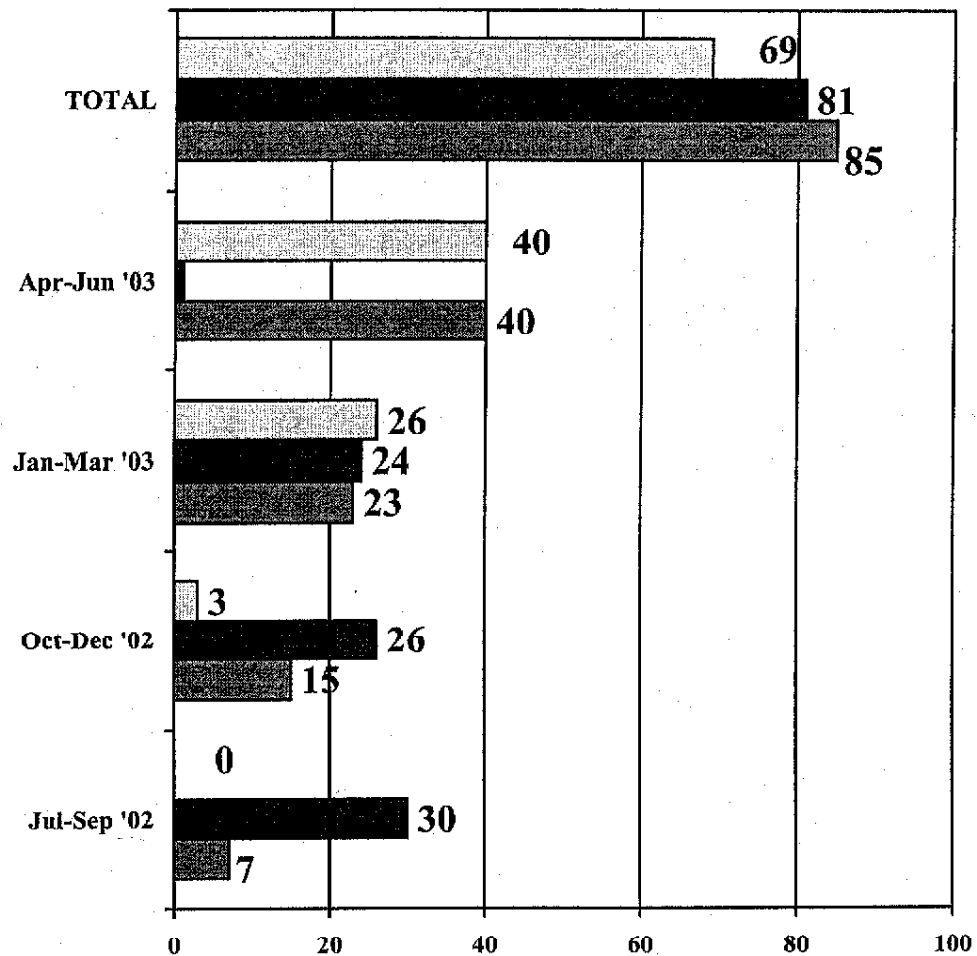
Mar. 24 – Apr. 4 Leonard Kryston, MD
Apr. 18 – Apr. 25 Chris Welch
May 2 – May 9 Neal A. Palafox, MD
May 7 – May 9 Henry N. Preston, MD

⁵ Beginning 1 August 2001, Dr. Sheldon Riklon was hired as Director, Clinical Operations in the RMI. Faculty rotations other than Dr. Wilfred Alik will be on an as needed basis.

Exhibit 3

Performance Measures

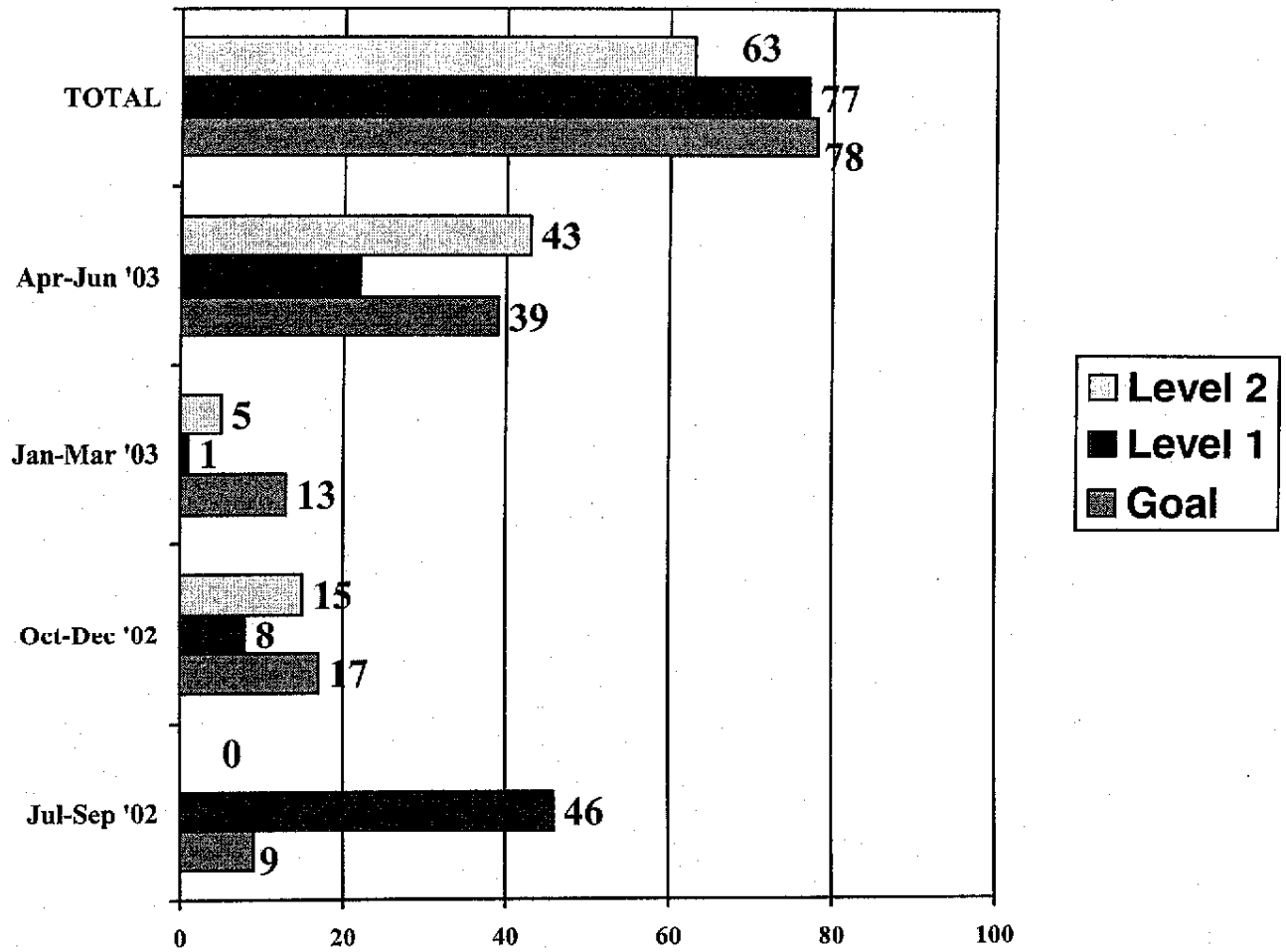
Annual Examinations - Majuro Clinic ⁶



⁶ Note: Level 1 represents the number of annual exams that have been started but not completed. Level 2 represents the number of annual exams that have been completed.

Performance Measures

Annual Examinations - Kwajalein Clinic ⁷



⁷ Note: Level 1 represents the number of annual exams that have been started but not completed. Level 2 represents the number of annual exams that have been completed.